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10/511,550	12/30/2004	Druce Barry Batstone	15246.0002	4635

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EXAMINER	
WEIER, ANTHONY J	

ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/511,550	BATSTONE, DRUCE BARRY	
	Examiner	Art Unit	
	Anthony Weier	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 September 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21,24-33 and 35-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21,24-33 and 35-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-19, 21, 24-33, and 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forkner et al taken Mathewson and either one of Lippe et al or Lee.

Forkner et al discloses a process wherein a plant material (e.g. citrus fruit) subjected to a juice release step wherein the juice portion is concentrated by evaporation (and inherently formed into a syrup) and the remaining pulp portion of the plant material is dewatered (including the use of heating in rotating drum driers) wherein the concentrated juice is then added to the dewatered pulp (see Fig. 2; col. 5, line 29 – col. 6, line 54).

Although Forkner et al discloses a "juicing operation", it is silent as to what this exactly entails. The instant claims call for juicing by crushing the plant material with roll crushers having multiple rolls and nips. It is well known to juice plant material such as citrus fruit by crushing with multiple rolls and nips as set forth, for example, in Mathewson (see Figures). It would have been obvious to one having ordinary skill in the art at the time of the invention to have employed such crushing for the advantages articulated in Mathewson including avoiding hand labor (e.g. page 1, lines 7-20).

The claims further call for conveying of the pulp by particular means, drying using steam including superheated steam at high pressures, the flow direction of steam used to dry the pulp, and heating the steam in a heat exchanger that uses hot gas. It should be noted that the conveying means (by gases, moving beds, screw feeders, plug feeders with pistons, etc.) are all notoriously well known and it is not seen wherein anyone of same would provide a patentable distinction regarding the process of conveying said pulp. It would have been further obvious to have employed anyone of such well known conveying means as a matter of preference depending on the particular means available or depending on the means with the most optimal cost. As for the use of steam including high pressure superheated steam, for drying, such is further notoriously well known, and it would have been further obvious to have included same in drying the pulp as an art recognized mode of heating. Likewise, the use of gas fed heat exchangers to heat steam are also notoriously well known, and it would have been further obvious to have employed same as an art recognized mode for generating steam. Also, it is not seen wherein drying the pulp using upward flow of steam through a bed of pulp would provide for a patentable distinction. Same is a notoriously well known mode for drying, and it would have been further obvious to have incorporated same as a matter of preference among the well known drying modes available.

Although Forkner et al discloses drying of the pulp with a rotary drier, it is specifically articulated that this is achieved by injecting steam into the drum via perforations in same and that this occurs intermittently. Injection of steam into a drier drum via perforations in the drum is notoriously well known, and it would have been

further obvious to have incorporated same as a matter of preference. In addition, the use of steam treatment intermittently rather than continuously would have been additionally obvious as a matter of preference depending on, for example, optimizing the cost involved in heating and delivering said steam, for example.

The claims further call for the treatment of sugar cane and sweet sorghum. Although Forkner et al focuses on treatment of citrus fruit, same also discloses treatment of chocolate and nuts and furthermore discloses "many other products can be manufactured by use of the present process by utilizing different flavoring or food ingredients" , thus indicating that the process is intended for use with plant material beyond that specifically articulated. Lippe et al (col. 2) and Lee (col. 1) each teach treatment of both fruit and sugar cane in similar fashion to obtain products therefrom including concentrated sugar component. Knowing that it is well known to crush both sugar cane and fruit to facilitate obtaining a sugar juice which is then further treated, it would have been obvious to one having ordinary skill in the art at the time of the invention to have used the Forkner et al process to derive sugar juice and other products (i.e. pulp) from sugar cane as the art teaches both fruit and sugarcane as sources for sugar which obtained in a similar way. As for the treatment of sweet sorghum, same is a well known as a sweetening aid and is related to species of grasses like sugar cane. Because of the similarity between sweet sorghum and sugar cane (same family, stalk, juice, etc.), it would have been further obvious to have treated sweet sorghum for the same reasons as sugar cane. Treatment of sweet sorghum is seen as nothing more than an obvious alternative to the treatment of sugar cane or fruit

wherein all of same contain a juice and pulp.

The claims further call for pre-cleaning the sugar cane prior to crushing same. However, it is notoriously well known to pre-clean plant foods prior to treatment, particularly since same carry dirt or other extraneous matter not desired in the derived products. It would have been further obvious to have included such pre-cleaning step as a well known step to eliminate undesirable material in manufactured foods.

The claims further call for the particular soluble components in the juice, the moisture content of the pulp, and the temperature employed during creation of the syrup and dewatered pulp. However, all of these variables would have been well within the purview of a skilled artisan, and, absent a showing of unexpected results, it would have been further obvious to have arrived at same through routine experimentation depending on, for example, the color/flavor of the juice, texture of the pulp, and the economic optimum from heating at a certain temperature.

The claims also call for the syrup and pulp to be combined into a block form under pressure. Though Forkner et al is silent regarding producing the combination in such manner, it is not seen where such shape and format would make for a patentable distinction, and it would have been further obvious to have prepared the combination in any form including a block form using pressure molding, etc. as a matter of preference depending on the particular aesthetics desired in the final product.

Although Forkner et al discloses preparing the syrup and pulp combination for subsequent “marketing” (col. 6, line 54), it is silent regarding packaging including use of plastic film. However, it is notoriously well known to package foods to be marketed and,

moreover, to package same in plastic film. It would have been further obvious to have packaged said syrup and pulp combination to aid in the preservation of same and, as to the packaging form, as a matter of preference depending on the cost involved, the durability and protective value of the material, the availability of same, etc.

Refining sugar products is notoriously well known, and it would have been further obvious to have refined the product of Forkner et al alone or as modified in a different location as a matter of preference depending on the degree of purity desired in the final product.

9. Claims 1-19, 21, 24-33, and 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noznick et al taken together with Matthewson and either one of Chandrasekaran et al or Lee et al.

Noznick et al discloses crushing a plant material (onion) wherein a juice is removed and concentrated to a spray-dried degree and the remaining plant material is roller dried and then recombined with the spray-dried juice.

The instant claims call for juicing by crushing the plant material with roll crushers having multiple rolls and nips. It is well known to juice plant material by crushing with multiple rolls and nips as set forth, for example, in Mathewson (see Figures). It would have been obvious to one having ordinary skill in the art at the time of the invention to have employed such crushing for the advantages articulated in Mathewson including avoiding hand labor (e.g. page 1, lines 7-20).

The claims further call for conveying of the pulp by particular means, drying using steam including superheated steam at high pressures, the flow direction of steam used

to dry the pulp, and heating the steam in a heat exchanger that uses hot gas. It should be noted that the conveying means (by gases, moving beds, screw feeders, plug feeders with pistons, etc.) are all notoriously well known and it is not seen wherein anyone of same would provide a patentable distinction regarding the process of conveying said pulp. It would have been further obvious to have employed anyone of such well known conveying means as a matter of preference depending on the particular means available or depending on the means with the most optimal cost. As for the use of steam including high pressure superheated steam, for drying, such is further notoriously well known, and it would have been further obvious to have included same in drying the pulp as an art recognized mode of heating. Likewise, the use of gas fed heat exchangers to heat steam are also notoriously well known, and it would have been further obvious to have employed same as an art recognized mode for generating steam. Also, it is not seen wherein drying the pulp using upward flow of steam through a bed of pulp would provide for a patentable distinction. Same is a notoriously well known mode for drying, and it would have been further obvious to have incorporated same as a matter of preference among the well known drying modes available.

Although Noznick et al discloses drying of the pulp with a rotary drier, it is specifically articulated that this is achieved by injecting steam into the drum via perforations in same and that this occurs intermittently. Injection of steam into a drier drum via perforations in the drum is notoriously well known, and it would have been further obvious to have incorporated same as a matter of preference. In addition, the use of steam treatment intermittently rather than continuously would have been

additionally obvious as a matter of preference depending on, for example, optimizing the cost involved in heating and delivering said steam, for example.

The claims further call for the treatment of sugar cane and sweet sorghum. Chandrasekaran et al teaches the treatment of both onion and sugar cane in similar fashion to obtain products therefrom including concentrated juice components (col. 3). Lee et al teaches treatment of both sugar cane and vegetable juices in general which would naturally include onion juice. Knowing that it is well known to crush both sugar cane and onion to facilitate obtaining a juice which is then further treated, it would have been obvious to one having ordinary skill in the art at the time of the invention to have used the Noznick et al process to derive a juice and other products (i.e. pulp) from sugar cane as the art teaches both one and sugarcane as sources for juice which is obtained in a similar way. As for the treatment of sweet sorghum, same is a well known as a sweetening aid and is related to species of grasses like sugar cane. Because of the similarity between sweet sorghum and sugar cane (same family, stalk, juice, etc.), it would have been further obvious to have treated sweet sorghum for the same reasons as sugar cane. Treatment of sweet sorghum is seen as nothing more than an obvious alternative to the treatment of sugar cane or onion wherein all of same contain a juice and pulp.

The claims further call for pre-cleaning the sugar cane prior to crushing same. However, it is notoriously well known to pre-clean plant foods prior to treatment, particularly since same carry dirt or other extraneous matter not desired in the derived products. It would have been further obvious to have included such pre-cleaning step

as a well known step to eliminate undesirable material in manufactured foods.

The claims further call for the particular soluble components in the juice, the moisture content of the pulp, and the temperature employed during creation of the syrup and dewatered pulp. However, all of these variables would have been well within the purview of a skilled artisan, and, absent a showing of unexpected results, it would have been further obvious to have arrived at same through routine experimentation depending on, for example, the color/flavor of the juice, texture of the pulp, and the economic optimum from heating at a certain temperature.

The claims also call for the syrup and pulp to be combined into a block form under pressure. Though Noznick et al is silent regarding producing the combination in such manner, it is not seen where such shape and format would make for a patentable distinction, and it would have been further obvious to have prepared the combination in any form including a block form using pressure molding, etc. as a matter of preference depending on the particular aesthetics desired in the final product.

Noznick et al is silent regarding packaging including use of plastic film. However, it is notoriously well known to package foods to be marketed and, moreover, to package same in plastic film. It would have been further obvious to have packaged said syrup and pulp combination to aid in the preservation of same and, as to the packaging form, as a matter of preference depending on the cost involved, the durability and protective value of the material, the availability of same, etc.

Refining food products is notoriously well known, and it would have been further obvious to have refined the product of Noznick et all alone or as modified in a different

location as a matter of preference depending on the degree of purity desired in the final product.

4. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied in paragraphs 2 or 3 above and further taken together with DE 2049826.

The claims further call for the particular means employed in concentrating the juice (i.e. stages with steam). However, such is well known as taught, for example, by DE 2048726 wherein juice is concentrated employing steam in the first stage and then heating in subsequent stages with steam produced from previous stages. it would have been obvious to one having ordinary skill in the art at the time of the invention to have employed same as an economical concentrating step.

Response to Arguments

5. Applicant's arguments filed 9/5/05 have been fully considered and the rejections under 35 USC 112 and 35 USC 102 have been withdrawn as a result. Applicant's arguments regarding the rejections under 35 USC 103, however, are not persuasive.

Applicant argues that Noznick and Forkner et al do not disclose or teach the sugar cane being formed into blocks of mixed syrup and dried pulp under pressure whereby the potential for rehydration is reduced. Although both references are silent regarding same, it is not seen where such shape and format would make for a patentable distinction, and it would have been further obvious to have prepared the combination in any form including a block form using pressure molding, etc. as a matter of preference depending on the particular aesthetics desired in the final product.

Furthermore, it is inherent that the potential for rehydration would be reduced because the surface area of the material would be reduced.

All other arguments have been addressed in view of the rejections as set forth above.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Weier whose telephone number is 571-272-1409. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Anthony Weier
Primary Examiner
Art Unit 1794

/Anthony Weier/
Primary Examiner, Art Unit 1794

Anthony Weier
December 4, 2008